Analysing Nascent Entrepreneurs’ Behaviour through Intention-Based Models
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Abstract: The extended societal interest in promoting entrepreneurship contrasts with the limited knowledge on the factors influencing entrepreneurial behaviour. Academics claim to widen the perspective to analyze those factors that can enhance the success in entrepreneurial behaviour. Following this aim, intention-based models have been developed to uncover the influential factors of entrepreneurship intention.

However, prior empirical research on intention-models in entrepreneurship has mostly used university students' samples. According to McGee et al. (2009) students' samples possess limitations that could introduce a significant bias in the results (mainly due to their limited professional experience).

The main contribution of this research lays in the refinement of intention-based models by providing a complementary work to Krueger et al. (2000). In this sense, the study follows a quantitative method in order to analyse a sample of 467 nascent entrepreneurs under the framework of two intention based models: Ajzen’s Theory of Planned Behaviour and Shapero’s Entrepreneurial Event. Due to the fact that the sample is not limited to university students, the results analysis offer a complementary understanding on the influencing factors for entrepreneurship behaviour.

Results support that both models are strongly homologous although the TPB offers a slightly higher R² of entrepreneurship intention. TPB’s subjective norms and SEE’s propensity to act constructs failed to add significant information to the model comparison. In addition, an analysis through some personal traits and situational variables of the respondents shows significant differences among the structural models of the subsets.

Finally, this research provides valuable insights for governmental entities, training centres, entrepreneurship foundations, venture capitalists, and other consultants or advisors who should benefit from a better general understanding of how intentions are formed.

Keywords: Entrepreneurship Intention, Theory of Planned Behaviour (TPB), Shapero’s Entrepreneurial Event (SEE), Nascent Entrepreneurs.

1 Introduction

Entrepreneurial practices are an integral part of the renewal process that defines market economies (Kuratko 2005). Consequently, there is a societal interest in promoting entrepreneurship to enable millions of people (including women, immigrants and minorities) to enter the pursuit of economic success.

Earlier approaches focused on identify common patterns among entrepreneurs (such as personal traits or situational variables) but in general, their predictive capacity has been low. In 1988, Gartner challenged the whole approach by arguing that the behaviour of creating a new venture should be fundamental to the definition of entrepreneurship.

Intentions have shown to be the best predictors of behaviours; therefore, entrepreneurship-intention models provide a practical insight to the entrepreneurship behaviour. Among the different models that can be found in literature, Ajzen’s Theory of Planned Behaviour (TPB) and Shapero’s Entrepreneurial Event model (SEE) have received particular attention due to their explanatory capacity.

However, most of the existing empirical research has relied on data collected exclusively from university students; few studies have included broad samples of nascent entrepreneurs. Student samples possess unavoidable limitations; e.g. most students simply do not have the prior professional experience or resources to judge whether they can be successful entrepreneurs (McGee et al. 2009).

The goal of this research is to shed some light on prediction capabilities of current entrepreneurial-intention models using a sample of 467 nascent entrepreneurs. The research holds a quantitative method to empirically test the support for entrepreneurial-intention models. The data has been collected using a questionnaire built upon Entrepreneurship Intention Questionnaire (EIQ) designed and validated by Liñán and Chen (2009).
Results based on nascent entrepreneurs show that these models are adequate enough to study the entrepreneurial behaviour of these individuals. All variables exhibit a similar path related to entrepreneurial intentions. A detailed analysis of different subsamples based on socio-demographic variables, indicates that there are specific traits for subsamples based on age and education levels. These results suggest that intention models should take into account these specificities for the subsamples.

The structure of this paper is as follows. After this introduction, section two reviews previous contributions and presents both intention-based models. Third section briefly describes the research design, including a description of the scenario, procedure and the questionnaire employed. The results of both structural models are explained in section four, including an analysis of the structural models driven through the different control variables. Finally, section five contains a discussion on the findings, the limitations and future lines of the research. The paper ends with a brief conclusion.

2 Literature review

The function of entrepreneurs in society was the object of early discussions in the economic literature, Schumpeter (1934) defined entrepreneurs as individuals whose function was to carry out new combinations of means of production. Since this early contribution, scholars have further described the relevance of the entrepreneurial function promoting the renewal of market economies (Kuratko 2005) offering new opportunities to individuals to participate in a healthy socio-economic development.

In this sense, the identification of factors that would predict business start-up activities has been an important theme in the literature. First approaches on entrepreneurship were based on exploring the individual personality traits that were seen to be common in successful entrepreneurs (e.g. McClelland 1961). Other researches, proposed to look at situation variables (Reynolds et al. 1994), while other scholars suggested looking at demographic variables (Robinson et al. 1991). These approaches contributed to describe the phenomena, but in general had low predictive capacity.

In an attempt to improve the predictive capacity, Gartner (1988) argued that the behaviour of creating a new venture, not the personality of the founder, should be the fundamental object of study. More precisely, although behaviour can result from unconscious and unintended antecedents, the interest lays on the conscious and intended act of founding a firm (Bird 1988; Krueger et al. 2000), and to analyse how this decision is made. Focusing on the pre-decision stage of becoming entrepreneur, intentions are seen to be the best predictor of behaviour (Fishbein and Ajzen 1975). In this sense, the higher the intention, the higher the probability of the behaviour (Ajzen 1991). In turn, the intention of carrying out entrepreneurial behaviours may be affected by several factors, such as needs, values, wants, habits, and beliefs (Bird, 1988; Lee and Wong, 2004).

In order to accomplish a better understanding of the different factors influencing entrepreneurship intention, researchers have developed intention-based models (Liñán, 2004). These models are intended to become tools for examining the precursors to entrepreneurship (Krueger et al., 2000). According to Guerrero et al. (2008), in the eighties and nineties the five main models that have addressed entrepreneurship are: Shapero’s Entrepreneurial Event (Shapero and Sokol 1982), The Theory of Planned Behavior (Ajzen 1991; adapted to entrepreneurship by Kolvereid 1996), Entrepreneurial Attitude Orientation (Robinson et al. 1991), Entrepreneurial Potential Model (Krueger and Brazeal 1994) and Davidsson Model (Davidsson 1995).

Several researches have been using these models in order to accomplish a better understanding on entrepreneurial intention. For example Walstad and Kourilsky (1998) used the SEE for analysing the personal attitudes and knowledge of ethnic entrepreneurship in USA and Peterman and Kennedy (2003) examined in Australia, through the SEE, the effect of participation in an enterprise educational programme on perceptions of the desirability and feasibility of starting a business. Other examples can be found on the use of the TPB to approach entrepreneurship intention. Kolvereid (1996), for example, tried to predict the employment status choice of 128 Norwegian undergraduate business students. Tkachev and Kolvereid (1999) did a similar research investigating the employment status choice intentions of 512 Russian university students. Both TPB and SEE have been widely used in literature for analysing entrepreneurship behaviours. In fact, Krueger et al. (2000) compared these two intention-based models capacity to predict entrepreneurial intention using a sample of senior university students. Results of their research showed statistical support for both models and stated that both models are largely homologous to one another.
Nevertheless, an important consideration is that research on entrepreneurship has relied on empirically testing samples of university students; only few have included nascent entrepreneurs. Furthermore, there are limitations on students, as for example their perception of capability, as they don’t have the experience to judge if they could be successful entrepreneurs or not (McGee et al. 2009). It seems that student samples are commonly used simply because most researchers have easy access to them. Although, students enrolled in entrepreneurship courses typically exhibit some characteristics of nascent entrepreneurial behaviour, student samples possess severe limitations (McGee et al. 2009).

Nascent entrepreneurs, on the other hand, are individuals who have yet to start a new business. They possess the desire to start a new business and are involved in specific activities in order to make it happen (Carter et al., 1996). More precisely, Aldrich and Martinez (2001) describe nascent entrepreneurs as individuals who not only say they are currently giving serious thought to the new business, but also are engaged in at least two entrepreneurial activities, such as developing a business plan, investing money, organizing a start-up team, etc. In this vein, McGee et al. (2009) suggested that research on entrepreneurial behaviours should include nascent entrepreneurs in order to get a better definition on the motivational antecedents of intentions.

Although empirical testing of entrepreneurial intention among students has found support for both the SEE model and the TPB (Kolvereid 1996; Krueger et al. 2000), there is not yet an agreement to which model helps better to identify entrepreneurship intention into different samplings. Following this research stream, this work proposes to study the predictive capacity of the entrepreneurship models using nascent entrepreneurs in the sample. Concretely, this research work posits that nascent entrepreneurs can exhibit a different behaviour for the intention-based models compared to entrepreneurship students.

Based on the previous works by Krueger et al (2000) and Kolvereid (1996), the authors propose to use the same intention-based models (TPB and SEE) to assure the comparability of the results. In the following sections of this literature review, the authors describe these two models and set the foundations to compare the outcomes.

### 2.1 The Theory of Planned Behaviour

Grounded on the Theory of Reasoned Action (Fishbein and Ajzen 1975), Ajzen (1991) defined the Theory of Planned Behaviour. This model, which comes from the field of psychology, was adapted to the field of entrepreneurship by Kolvereid (1996). The TPB (Figure 1) defines a relationship between intentions and behaviour (already defined in the TRA); where the individual intention towards a particular behaviour is directly related to that behaviour. Therefore, intention becomes a fundamental element for explaining entrepreneurship behaviour.

![Figure 1: Theory of Planned Behaviour (Ajzen 1991)](image)

In turn, the model identifies three attitudinal antecedents of intention (Ajzen 1991):

- The Personal Attitude (PA) toward the behaviour taps perceptions of the personal desirability of performing the behaviour.
The Subjective Norms (SN) tap the perceptions of what important people in respondents’ lives think about performing a particular behaviour. Included would be the individual’s family expectations about the desirability of becoming entrepreneur.

The Perceived Behavioural Control (PBC) is defined as the perceived ease or difficulty of performing behaviour. Individuals usually elect to adopt behaviours they think they will be able to control and master.

Although these three elements would describe the elements composing entrepreneurship intention and behaviour, previous research on entrepreneurship found that the subjective norms tend to contribute very weakly on explaining entrepreneurship intention (Liñán and Chen 2009).

### 2.2 Shapero’s Entrepreneurial Event model

Shapero’s Entrepreneurial Event model (Figure 2) was developed by Shapero and Sokol (1982) to define the interaction of cultural and social factors that can lead to a firm creation by influencing individual’s perceptions. In this sense, the model considers entrepreneurship as an alternative or available option that takes place as a consequence of an external change.

**Figure 2:** Shapero’s Entrepreneurial Event (Shapero and Shokol 1982)

The model defines two basic kinds of perceptions:

- **The Perceived Desirability (PD)** is the product of individual's perceptions of desirability of entrepreneurship affected to personal attitudes, values, and feelings.
- **The Perceived Feasibility (PF)** is related to an individual's perception of available resources; in other words, it measures the individual’s personal perceived ability to carry out certain behaviour.
- **The Propensity To Act (PTA)** is the personal disposition to act on one’s decisions, reflecting volitional aspects of intentions.

The SEE has also been used in several occasions for analysing entrepreneur activities (Walstad and Kourilsky 1998; Peterman and Kennedy 2003). Results support this model as a consistent tool for measuring entrepreneurship intention.

### 2.3 Research questions

Krueger (1993) argued that the perceived desirability in the SEE model corresponds to both the attitude and the subjective norms components in the TPB; conveniently considering desirability as a result of social and cultural influences. He also argued that SEE’s perceived feasibility overlaps with TPB’s perceived behavioural control and both are conceptually associated with perceived self-efficacy (Bandura 1997). He finally added that Ajzen’s framework contains no explicit volitional measure akin to SEE's propensity to act.

In 2000, Krueger et al. compared a sample of 97 American university students to understand the competition of these two intentional-based models. Their research supported that both models offer researchers a valuable tool for understanding the process of entrepreneurship intentionality and that both are homogeneous; yet Shapero’s model (SEE) offered a (slightly) higher adjusted $R^2$ (0.408) than Ajzen’s theory (0.350). Their results also found difficulties for defining the role of subjective norms on the TPB model.
This research work wants to refine these previous outcomes by using a nascent entrepreneurs’ sample. To accomplish this goal, this work proposes the following research questions:

- Are both models equally competitive for explaining entrepreneurship intention on nascent entrepreneurs?
- Does a nascent entrepreneurs’ sample provide new insights for explaining entrepreneurship intention?

3 Research design

3.1 Questionnaire and measures

Over the years, researchers haven’t had a unique standard tool for collecting data. Krueger et al. (2000), for example, used a single-item variables to measure each construct; whereas, other researchers have employed belief-based measures, aggregated scales or other techniques.

In 2009, Liñán and Chen developed the Entrepreneurship Intention Questionnaire (EIQ) in order to become a standard for measuring entrepreneurship intention and its antecedents. This tool used a 7 likert-scale for measuring the different constructs of the TPB. As already mentioned above, perceived feasibility (from the SEE) is quite homologous to a combination of both the personal attitudes and the subjective norms (from the TBP). Then, to account for this measure (PD), the analysis accounted for a combination of the indicators used for measuring personal attitudes and subjective norms from the EIQ. In addition, considering that both perceived behavioural control and perceived feasibility correspond to self-efficacy (Bandura 1997); the indicators for measuring perceived behavioural control on the TPB model were conveniently used for measuring both perceived desirability and feasibility. However, the tool does not account for already developed questions for measuring the SEE’s constructs. Therefore, the additional questions needed for measuring SEE’s propensity to act were taken from Lepoutre et al. (2010). These questions were transformed into 7-likert scale measures.

Finally, the questionnaire was translated into Spanish by a bilingual experienced researcher on entrepreneurship and the result was translated back into English by another independent researcher. The final version was validated through focus groups in order to assume a proper understanding of the items in a Spanish cultural background

3.2 Scenario and procedure

If previous research on entrepreneurship has relied exclusively on student samples; there is a need to test these models (TPB and SEE) using non-student samples. The authors managed to access to a large pool of non-students who attended an enterprise educational program promoted by the regional administration institution, through the labour department. The programme was aimed to improve entrepreneurial skills of individuals who had been working on an entrepreneurial project for less than 3 years.

The surveys were administered at the initial training sessions from September to October 2010. Participants were asked to voluntarily and anonymously fill in the survey. A total of 644 questionnaires were thus collected. After removing questionnaires with missing data, 467 questionnaires were finally taken into analysis. The statistical analysis showed that 56.32% of the individuals were males a 46.90% were under 35 and a 72.37% were University or Post University graduates. Therefore, the socio-demographic structure of the sample was similar to GEM (2010).

Since the objective of this study is to evaluate whether both TPB and SEE are equally competitive for explaining entrepreneurship intention on nascent entrepreneurs, Structural Equation Modelling (SEM) has been considered a good methodological option (Park 2009) for assessing the causal relationship among their variables. In fact, SEM analyses (SmartPLS 2.3) have already been used for similar purposes in the field of entrepreneurship (e.g. Liñán and Chen 2009). Additionally, the sample size is considered sufficient as the minimum for a SEM analysis with α=0.05, anticipated effect size of 0.10 and desired statistical power level of 0.95, is 166 samples.
4 Results analysis

4.1 Measurement model

Before analysing the structural model, a measurement model analysis has been held in order to verify
the psychometric properties of the questionnaire (Chandler and Lyon 2001). The evaluation of the
internal consistency (reliability) of the proposed scales consisted on examining the Cronbach’s alpha,
the composite reliability and the average variance extracted (AVE) of the constructs of both models.

Table 1: AVE, Composite Reliability and Cronbach’s Alpha of the constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>0.442</td>
<td>0.797</td>
<td>0.681</td>
</tr>
<tr>
<td>PD</td>
<td>0.362</td>
<td>0.768</td>
<td>0.671</td>
</tr>
<tr>
<td>SN</td>
<td>0.541</td>
<td>0.875</td>
<td>0.838</td>
</tr>
<tr>
<td>PTA</td>
<td>0.484</td>
<td>0.737</td>
<td>0.468</td>
</tr>
<tr>
<td>PBC/PF</td>
<td>0.519</td>
<td>0.865</td>
<td>0.812</td>
</tr>
<tr>
<td>EI</td>
<td>0.448</td>
<td>0.826</td>
<td>0.746</td>
</tr>
</tbody>
</table>

Except for the PTA construct, based on (Yi and Davis, 2003), all the values are acceptably significant
to ensure the reliability of the measurement, ensuring the consistency and stability of a score from a
measurement scale.

A convergent validity analysis through the standardized loading tables resulted satisfactory for both
models; what means that different indicators of a particular construct measure the same. A
discriminant validity analysis through the cross loadings tables also resulted satisfactory for both
models what indicates that every indicator of the other constructs is different from each particular
construct.

4.2 Structural model – Theory of Planned Behaviour

Figure 3 shows significant support for the Theory of Planned Behaviour. In particular, the regression
of personal attitude, subjective norms and perceived behavioural control towards intention was 0.489.

![Results for the Theory of Planned Behaviour](Figure 3)

Intention was predicted significantly by personal attitude toward entrepreneurship intention (PA→EI,
0.499) and perceived behavioural control (PBC→EI, 0.286). However, the relationship between
subjective norms and entrepreneurial intention couldn’t be supported (SN→EI, <0.2). Relationships
have been found significant at a 95% level (t-values > 1.96)

4.3 Structural model – Shapero’s Entrepreneurial Event

Figure 4 shows significant support for Shapero’s Entrepreneurial Event model. In particular, the
regression of perceived feasibility, propensity to act and perceived feasibility towards intention was
0.450.
Results for the Shapero’s Entrepreneurial Event

Intention was predicted significantly by perceived feasibility toward entrepreneurship intention (PD→EI, 0.457) and perceived feasibility (PF→EI, 0.286) considering that relationships are significant at a 95% level (t-values > 1.96). However, the propensity to act component was non-significant at a 95% level (t-values = 1.762) and the raw correlation between propensity to act and entrepreneurial intention couldn’t be supported (PTA→EI, n.s).

4.4 Sub-sampling through the control variables

An additional SEM analysis was carried on through the different control variables collected from the participants to shed some light on possible significant differences among the subsamples.

Table 2: Descriptive statistics for the sample

<table>
<thead>
<tr>
<th>Relationship*</th>
<th>R²</th>
<th>#</th>
<th>PA - EI</th>
<th>PD - EI</th>
<th>SN - EI</th>
<th>PTA - EI</th>
<th>PBC - EI</th>
<th>PF - EI</th>
<th>EI (TPB)</th>
<th>EI (SEE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td>467</td>
<td>0.499</td>
<td>0.457</td>
<td>0.092</td>
<td>0.286</td>
<td>0.286</td>
<td>0.489</td>
<td>0.450</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>263</td>
<td>0.455</td>
<td>0.407</td>
<td>0.149</td>
<td>0.321</td>
<td>0.323</td>
<td>0.531</td>
<td>0.496</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>204</td>
<td>0.538</td>
<td>0.510</td>
<td>(n.s)</td>
<td>0.282</td>
<td>0.303</td>
<td>0.496</td>
<td>0.470</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 35</td>
<td></td>
<td>219</td>
<td>0.548</td>
<td>0.489</td>
<td>0.139</td>
<td>0.195</td>
<td>0.212</td>
<td>0.499</td>
<td>0.457</td>
<td></td>
</tr>
<tr>
<td>35 - 44</td>
<td></td>
<td>178</td>
<td>0.477</td>
<td>0.392</td>
<td>(n.s)</td>
<td>0.411</td>
<td>0.426</td>
<td>0.591</td>
<td>0.544</td>
<td></td>
</tr>
<tr>
<td>&gt; 45</td>
<td></td>
<td>70</td>
<td>0.478</td>
<td>0.449</td>
<td>(n.s)</td>
<td>0.325</td>
<td>0.256</td>
<td>0.494</td>
<td>0.494</td>
<td></td>
</tr>
<tr>
<td>Educ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-grad.</td>
<td></td>
<td>129</td>
<td>0.464</td>
<td>0.370</td>
<td>0.128</td>
<td>0.320</td>
<td>0.360</td>
<td>0.536</td>
<td>0.496</td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td>165</td>
<td>0.490</td>
<td>0.389</td>
<td>(n.s)</td>
<td>0.332</td>
<td>0.359</td>
<td>0.545</td>
<td>0.492</td>
<td></td>
</tr>
<tr>
<td>Post-grade</td>
<td></td>
<td>173</td>
<td>0.553</td>
<td>0.527</td>
<td>(n.s)</td>
<td>0.232</td>
<td>0.196</td>
<td>0.488</td>
<td>0.465</td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>278</td>
<td>0.499</td>
<td>0.457</td>
<td>(n.s)</td>
<td>0.266</td>
<td>0.287</td>
<td>0.489</td>
<td>0.450</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>189</td>
<td>0.499</td>
<td>0.403</td>
<td>(n.s)</td>
<td>0.323</td>
<td>0.312</td>
<td>0.504</td>
<td>0.469</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the 95% level (p < .05)

The measurement model is acceptable for both the TPB and the SEE despite PTA measurement still shows a weak construct.

When analyzing the structural models, not many differences are found on the explanatory capacities (R²) of the two models (Figure 3 and Figure 4); however significant differences were identified on the explanatory capacities among the different subsets (Table 2). In particular, the R² for entrepreneurship intention on the samples between 35 and 44 years old is significantly higher (R²_TPB=0.591 and R²_SEE=0.544) than for those under 35 (R²_TPB=0.499 and R²_SEE=0.457) or older than 44 (R²_TPB=0.494 and R²_SEE=0.494).

Table 2 also shows that, when computing the two models for the different age categories the relationship between the perceived behavioural control (and perceived feasibility) and entrepreneurship intention is significantly different among the subsamples. For instance, the relationship between the perceived behavioural control and entrepreneurship intention for young nascent entrepreneurs (<35 years old) is 0.195; whereas, he relationship between the perceived
feasibility (for the SEE) and entrepreneurship intention is 0.411 for middle-aged nascent entrepreneurs (between 35 and 44). A similar phenomenon happens with the SEE model, the relationship between perceived feasibility and entrepreneurship intention for young nascent entrepreneurs is 0.212; whereas, this same hypotheses is supported at a 0.426 for middle-aged nascent entrepreneurs. This may happen because perceived behavioural control (or perceived feasibility) is strongly related to experience, and these may be acquired over the years.

In addition, another significant difference among the subsamples (Table 2) is identified when comparing the two models for the different education categories. For the case of the TPB, the relationship between the perceived behavioural control and entrepreneurship intention is significantly different among the subsamples: Non-graduated (0.320), Graduate (0.332) and Post-graduated (0.232). A similar situation is found for the case of the SEE model, as the relationship between perceived feasibility and entrepreneurship intention is significantly higher for both Under-graduated and Graduate respondents (0.360 and 0.359; respectively) compared to Post-graduated respondents (0.196).

5 Discussion
This work contributes to the study of two intention-based models (TPB and SEE) on the entrepreneurial behaviour. The research questions that motivated this study aimed to address two main issues: (1) whether both models are equally competitive for explaining entrepreneurship intention on nascent entrepreneurs, and (2) if a nascent entrepreneurs sample provides new insight for explaining entrepreneurship intention.

Although Ajzen’s theory appears slightly superior on this work, results support that both models are equally useful for addressing entrepreneurship intention. In addition, an analysis through the control variables supported that both models behave similarly when analyzing entrepreneurship intentions although the age and education categories found significant differences among their subsets.

This study on nascent entrepreneurs provides strong $R^2$ values for both models ($R^2_{TPB}=0.489$; $R^2_{SEE}=0.450$). In fact, earlier researches based on student samplings typically explain less than 40% of the variance in entrepreneurial intention (e.g. Soutaris et al. 2006; Kautonen et al. 2010; Krueger 1993). Compared to the previous comparative study held by Krueger et al. (2000), their results are lower for both the TPB ($R^2=0.350$) and the SEE ($R^2=0.408$). However, Liñán and Chen (2009) obtained a higher variance for entrepreneurship intention ($R^2_{TPB}=0.579$) on a cross-cultural study. In addition, the sub-sampling analysis on the different control variables achieved higher values ($R^2_{TPB}=0.591$; $R^2_{SEE}=0.544$) for the variance of the entrepreneurship intention on middle-aged nascent entrepreneurs (between 35 and 44).

5.1 Limitations and further researches
General results are satisfactory for the use of the TPB and the SEE to analyse entrepreneurship intentions since the explained variance is notably high. However, it is important to consider some potential limitations of this study and future lines of research.

Firstly, it is important to take into account the exogenous influences of the sample. The respondents of the study were a group of nascent entrepreneurs who attended an enterprise educational programme. This could have influenced their perceived behavioural control (or perceived feasibility) as they could have known beforehand their weaknesses.

Secondly, this is relevant to take into consideration the measurement design developed for analyzing the SEE’s propensity to act construct. The measurement model ensured reliability and validity of the construct; however, results for the structural model found difficulties on explaining how this construct contributes to predicting entrepreneurship intention. A future challenge could be based on developing new measures for this construct in order to design an improved EIQ valid for both models.

Thirdly, the prior knowledge of the respondents would have also been an important information measure to take into account for its influence on individual’s perception. Therefore, it seems to be an indicator that may directly impact on perceived behavioural control (and perceived feasibility). Further research could focus on developing a deeper analysis of these variables.

Finally, the research does not identify the motivational criteria for their entrepreneurial choice. In this sense, it would be interesting to differentiate respondents who have chosen an entrepreneurial option
as a result of previous opportunity identification from those who have been driven by necessity (Reynolds et al. 2005).

6 Conclusions

The literature review identified that researchers who have studied entrepreneurship have been employing entrepreneurship-intention models in order to understand the relationship between the factors and their influence on intentionality.

However, only few researchers have analysed entrepreneurship through nascent entrepreneurs, and they employed student’s samplings instead. According to McGee et al. (2009) student samples possess obvious limitations. In this sense, the main contribution of the research stands for comparing two intention-based models through a sample based on nascent entrepreneurs. Our research shows that the TPB and SEE models are useful to analyze these nascent entrepreneurs' samples. Moreover, this research work has shown that different subsamples within these individuals require a specific analysis; specifically different groups of age and education levels resulted in significantly different explained variances.

Finally, the research found Ajzen’s theory provides higher values of R² for assessing entrepreneurial intentions although both models appear equally useful. Despite some limitations on explaining the role of certain constructs, both intention-based models constitute valuable tools for understanding business venturing process with nascent entrepreneurs’ samples.

7 References


Aldrich, H.E. and Martinez, M.A. (2001), "Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship", Entrepreneurship Theory and Practice, vol. 25, no. 4, pp. 41-56.


